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ABSTRACT

As required by Assembly Bill 3848, the California State Department of Education has produced this report to help the Legislature determine whether it should promote a program to make nuclear age education more widely available in the public schools and, if so, what type of program would achieve the most desirable results. In preparing the report, the department used data solicited from county offices of education and school districts, community organizations, other state departments of education, and students. It also reviewed current literature on nuclear age education. Recommendations were made in two broad areas. First, the Legislature should provide resources for the State Department of Education to: (1) develop in-service activities for teachers, administrators, and parents; (2) increase the coverage of nuclear age topics in teachers' and students' publications; and (3) work with community groups to ensure a balanced, unbiased approach to nuclear age education. Second, the Legislature should encourage school districts to: (1) provide release time and opportunities for in-service training; (2) incorporate nuclear age instruction in all appropriate subject areas; and (3) involve parent and community groups to ensure a balanced, unbiased approach. The appendixes include Assembly Bill Number 3848, survey materials, and a nine-page listing of books, studies, periodicals, and curriculum guides and other resources. (BZ)

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Nuclear Age Education

**A Report to the Legislature,
As Required by Assembly Bill 3848 (1984)**

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CALIFORNIA STATE DEPARTMENT OF EDUCATION
Bill Honig, Superintendent of Public Instruction
Sacramento, 1986

SO017375

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Nuclear Age Education

Prepared by the
Curriculum, Instruction, and Assessment Division

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1986

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Executive Summary of the Report on Nuclear Age Education

As required by Assembly Bill 3848, the State Department of Education has produced this report to help the Legislature determine whether it should promote a program to make nuclear age education more widely available in the public schools and, if so, what type of program would achieve the most desirable results.

In preparing the report, the Department solicited data from county offices of education and school districts, community organizations, other state departments of education, and students. It also reviewed current literature on nuclear age education.

Indications are that:

- Little instruction about nuclear issues currently takes place in the schools of California.
- School districts and organizations representing concerned parents, teachers, and members of the community indicate strong support for including nuclear age education in the schools of California.
- A sampling of student opinion in California schools corroborates findings in recent literature that nuclear issues are of concern to today's youth and have an impact on their mental health.
- A sound rationale for including nuclear age education in the curriculum of California schools involves the classic mission of the public schools in a democracy: to develop citizens capable of making informed and independent choices on the vital issues of the day.

Recommendations on Nuclear Age Education

The Department believes that the following recommendations constitute the best method to help make nuclear age education available in California's public schools. The recommendations are based on the data secured from statewide surveys and a review of the literature on nuclear age education, which are included in the body of the report.

The Legislature should provide resources for the State Department of Education to:

A. Develop a series of in-service education activities for teachers, administrators, and parents to:

1. Increase personal awareness of attitudes commonly reflected in the student survey and appropriate responses to such attitudes.
2. Build skills in teaching critical thinking and conflict resolution and in allowing for increasingly sophisticatd analytical approaches to the nuclear age issues.

3. Provide access to age-appropriate resources, curricula, lesson plans, and alternative approaches to incorporating nuclear age education in existing curricula.

B. Continue to include and to increase the coverage of nuclear age topics in publications--such as frameworks, model curriculum standards, model curriculum guidelines, and handbooks--in all appropriate subject areas; for example, history, social science, science, literature, expository writing, the arts, and mathematics.

C. Work with all concerned community, civic, and public-interest groups to ensure a balanced, unbiased process for making nuclear age education part of the curriculum, which will result in a better informed, responsible, and responsive parent-teacher-student cooperative effort.

The Legislature should encourage school districts to:

A. Provide release time and appropriate opportunities for teachers and administrators to receive in-service training in nuclear age education, as described above.

B. Incorporate nuclear age instruction in all subject areas already in the curriculum, as appropriate, including history, social science, science, literature, expository writing, the arts, and mathematics. Instruction should be integrated in appropriate topics, and the content should be adjusted to fit the maturity of the students. Such age-appropriate instruction should include critical thinking in the nuclear age, conflict resolution, and increasingly sophisticated understanding of the decision-making processes surrounding nuclear age issues.

C. Involve parent, community, and public-interest groups in both in-service training and curriculum development to ensure a balanced, unbiased approach at the local level to meet the needs of students and teachers, as expressed in this report.

Report on Nuclear Age Education

When the wartime effort to design and build the first nuclear bomb culminated in the successful test of a plutonium device in the deserts of New Mexico on July 16, 1945, human history entered a new epoch. Albert Einstein, perceiving the immense power of the atom at the world's disposal, observed that "everything has changed except our way of thinking."

Realizing that citizens of this state must be able to think effectively about issues of the nuclear age, the California State Legislature translated its concern into legislation in 1984. It passed Assembly Bill 3848 to determine the status and possible future of nuclear age education in the state.

Nuclear age education may be described as an effort to acquaint students with the essential facts about nuclear technology. This education includes not only the peaceful uses of nuclear energy but also the sobering policy choices resulting from its possible use for nonpeaceful purposes. Nuclear education seeks to cultivate citizens who can participate in an informed, independent, and meaningful way in the vital issues facing our democracy.

Topics in a nuclear age curriculum may include the nature and application of nuclear energy, including its use as a source of power for business and industry and its specialized use in such areas as medicine and food preservation. Instruction might provide a forum for discussing the benefits and dangers of using nuclear energy, as well as the personal, environmental, social, political, and military aspects of life in the nuclear age. The curriculum can provide students with an understanding of the causes of conflict and the options for conflict resolution and attainment of peace. Nuclear age education should help students develop into informed, self-assured, responsible, decision-making adults.

Methodology Used by the Department

Assembly Bill 3848 requires the State Department of Education "to collect information on current efforts of school districts to provide nuclear age education, and other information relevant to the development of a model nuclear age education curriculum and to report its findings and recommendations to the Legislature...." (See Appendix A for the full text of the law.)

To discharge this responsibility, the Department solicited views through a survey of 1,086 school districts and county offices of education in California (Appendix B); 160 organizations representing teachers, parents, community members, and state departments of education throughout the United States (Appendix C); and students in four eleventh and three sixth grade classrooms selected for their geographic distribution and diversity in student population (Appendix D). The Department also undertook a review of the relevant literature, including (1) a survey of clinical studies on the psychological impact of growing up in the nuclear age; and (2) a compilation of curriculum materials presently available on the topic (Appendix F).

Questions Asked and Responses

The Department used the data from its surveys of the organizations and individuals cited above and from current literature to answer three appropriate questions:

- What is the current status of nuclear age education in California?
- Should the Legislature make nuclear age education more widely available in California's public schools?
- If so, what is the best method for achieving a favorable outcome?

What is the status of nuclear age education in California?

Results of the survey of county/district school offices indicate that little instruction aimed at helping students understand nuclear age issues currently takes place in California. Of the 1,086 offices contacted, 575 responded to the Department's questionnaire. Of these, only 14 indicated that they have in place a policy on nuclear age education. Of 72 districts reporting some kind of coverage of nuclear issues in one or more classes, total instructional time on these topics was estimated at an average of 11 minutes per week. Although textbooks were reported as the most common materials used to support instruction in nuclear age education, districts indicated that they also used resources provided by such organizations as Educators for Social Responsibility, National Education Association, Pacific Gas and Electric Company, and the Stanford Program on International and Cross-Cultural Education (SPICE).

The relative lack of attention to nuclear age education in California is fairly typical of the situation nationwide. Thirty-nine state departments of education returned the Department's questionnaire. Their responses indicate that none of the responding states requires nuclear age education; 26 have no official position regarding such instruction.

Those states which take some action in this area of the curriculum have varying approaches. The Massachusetts Department of Education, for example, provides upon request a list of resources to be used in providing in-service activities for teachers and administrators. It also makes funds available to train personnel in programs such as those that assist secondary students with decision making in the nuclear age. Virginia has state basal textbooks with objectives in nuclear age education for each grade level. Pennsylvania provides materials in nuclear science for grades eleven and twelve. These materials feature factual information about both military and civilian applications of nuclear energy.

Should the Legislature Make Nuclear Age Education More Widely Available in California's Public Schools?

A large majority of county/district offices responding to the Department's questionnaire indicated that they support, in principle, the

concept of providing students with instruction dealing with life in the nuclear age. Eighty-seven percent (502 of the 575) of the respondents affirmed that public schools should teach nuclear age education topics; 72 percent (416 of 575) suggested that there should be a planned nuclear age education curriculum and instruction.

Organizations representing parents, teachers, and community members also favored nuclear age education. Of 160 organizations polled, 82 responded. Fifty-two of these indicated that schools should offer a planned nuclear age education curriculum.

A contrary opinion was expressed in a letter from the American Security Council Foundation. This letter asserts that (1) schools should concentrate on imparting the basic disciplines; (2) nuclear issues are "far too complex and technical" to be absorbed by the average student; and (3) the commonly used nuclear age curricula "all reflect a fundamentally anti-defense posture." The letter concludes: "We strongly urge the California legislature and the Department of Education not to adopt any formal curriculum in the name of'nuclear education,' unless that program guarantees political and ideological impartiality in aims and structure, in materials used, and in teacher behavior and attitude."

The Department's sampling of California student attitudes and feelings regarding life in the nuclear age tended to corroborate the main findings in the literature reviewed in the next section: fear of nuclear war is a real concern of today's youth. The Department's questionnaire was sent in September, 1985, to students in four of the state's school districts. These districts were selected for their geographic distribution and for the diversity of their student populations. Three grade six and four grade eleven classrooms were asked to respond to two open-ended statements:

- List any ideas that come to you when you hear the word "nuclear."
- Discuss the responsibilities of our President, other countries, your school, your home, and youself on nuclear issues.

Images most often elicited by the word "nuclear" were those of war and its effects. The dominant feeling tone in the essays of the eleventh grades, as classified by teams of independent readers, were apprehension (51), frustration (41), despair (30), fear (25), hopelessness (22), sadness (15), confidence (13), optimism (10), anger (8), and indifference (5). A sample of typical comments include:

- "It's wrong. It's terribly wrong. I can't be more specific."
- "We'd like to build a shelter, but we aren't made of that kind of money."
- "One of these days, somebody's gonna push it too far and, WHAM!"

- "I know that I and most of my friends are scared sick of what could happen."

- "When people ask me what I wish for, world peace is what I say. No hesitation. No thought required."

What Is the Best Method to Help Make Nuclear Age Education Available in California's Public Schools?

Responses to the county/district office questionnaire make it perfectly clear what local educators do not want from the state in terms of nuclear age education: They do not want another required course. The most frequently volunteered comment on the questionnaire was that there are already too many curriculum mandates. In fact, use of the word "mandate" in one of the questions was enough to cause 62 percent of the respondents (333 of 537) to reject the idea of the Department's developing a model nuclear age curriculum, despite overwhelming support for nuclear age education.

The county/district responses indicated that nuclear age instruction should be appropriate to the age and maturity of the students. Thus, instruction in the primary grades should involve general awareness only, with increasing complexity at each appropriate grade level. At all grades, nuclear age content should be integrated into appropriate existing topics in such subjects as history-social science and science.

Seventy-seven percent of the county/district offices (443 of 575) emphasized the need for staff development activities to provide teachers and administrators with appropriate nuclear age education topics.

A Review of the Literature

The argument for nuclear age education grows out of recent psychosocial research concerning children's attitudes toward the prospect of nuclear war.

Based on a survey of high school students in Los Angeles, Boston, and Philadelphia from 1978 to 1980, undertaken by the American Psychiatric Association, Beardslee and Mack were the first to contend that a sizable portion of American youth were disturbed by fear of a nuclear war.

Goldenring and Doctor administered questionnaires to 923 California students in grades 7-12 in 1983. From a list of 20 "worry items," "nuclear war," ranking third, was preceded only by "death of parents" and "bad grades."

Van Hoorn and French found that 11 percent of a cross-section of 1,284 subjects (405 high school students, 721 college students, 158 individuals contacted by random phone survey) reported thinking about nuclear war on a daily basis; over a third did so at least once a week. The youngest subjects thought about the possibility of nuclear war most often; and the oldest, least often. These results are comparable to those of similar studies done in Sweden, Canada, and Finland.

Coles has suggested that fear of nuclear was is largely confined to children of liberal, affluent parents whose worries reflect their parents' point of view. But a broad-based survey of high school seniors by Bachman (monitoring over 16,000 pupils from 130 schools in 48 states each year for the last decade) showed a steady rise in the proportion of those who said they "often" worried about the nuclear threat. The increase was from 7 percent in 1976 to 31 percent in 1982. In 1984, Bachman's study indicated that nearly one in three students described himself or herself as "agreeing" or "mostly agreeing" with the statement: "Nuclear or biological annihilation will probably be the fate of all mankind within my lifetime."

On the other hand, Beardslee and Mack (and other psychiatrists) argue that anxiety about nuclear destruction contributes to a widespread "get it now" attitude among adolescents, a sense of futurelessness evident in the pathologies of drug abuse, escapism through religious cults, and an increasing suicide rate. "Building enduring values within an individual depends upon the delay of present satisfaction in favor of future goals and satisfactions," they wrote in their original paper. "But the formation of the psychic structure upon which such development depends is compromised in a setting in which the possibility of a future appears to have been destroyed by the adults to whom its preservation was ostensibly entrusted."

The evidence, however, is far from clear that fear of the bomb is causing widespread psychic fallout. Young people generally indicate that they have not changed their future plans based on the impact of nuclear

threat. Furthermore, several studies (Goldenring and Doctor, Van Hoorn and French, Solantaus et al) have shown that the adolescents most likely to say they worry about nuclear war are also those who do best in school and are the most optimistic that such a catastrophe can be avoided.

In fact, both the long-range effects of growing up in the shadow of the bomb and the potential for nuclear age education to calm or amplify fears remain largely in the realm of speculation. Pending further research, claims on either side of the question do not provide a sound foundation for setting policy.

A more compelling rationale for including nuclear age issues in the K-12 curriculum is that they are too important a part of the modern world to disregard. A traditional role of the public schools is citizenship education--preparing students to take part in the vital issues facing the nation. The argument that nuclear issues are beyond the ken of the average individual is anti-democratic on its face and was rejected by Marshall Shulman, special advisor on arms control issues during the Carter administration. In his contribution to the book, The Role of the Academy in Addressing the Issues of Nuclear War, he wrote:

> "...although the problem obviously has its technical aspects and it is important to call upon the best technical advice and

> counsel one can get, the fundamental judgments to be made in the field by a President and members of Congress can be made by ordinary, intelligent citizens who are not weapons specialists. These are questions in which there is technical input, but where the fundamental decisions are matters of judgment and common sense. Not only is it possible for an enlightened citizenry to decide matters like this, it is in fact vitally necessary that they do so and that they not leave it to specialized experts."

Indeed, what many observers count as the two most significant victories in arms control negotiations--the atmospheric test ban treaty in the 60's and the SALT I Anti-Ballistic Missile treaty in the 70's--were adopted following public involvement (in the former case, of worldwide scope). To participate intelligently in these momentous matters, however, citizens must be well-informed; in fact they must be much better informed than today's youth, whose curriculum generally skirts the issues. For example, Mack found that 30 percent of the pupils in his sample did not know which country had used nuclear weapons in war. The average estimate by students of the time a Soviet land-based missle would take to reach the United States was three hours and 12 minutes; the best estimate is 25 minutes.

Compounding the problem of "atomic illiteracy" is the sense that there is no permission to talk about this subject--at home or at school. In Goldenring and Doctor, over half of the students said they had never talked to their parents about nuclear war. Forty-two percent thought they had received "not enough" information about the subject in school, and about the same percentage considered themselves "very" or "somewhat uninformed." "The schools I have attended do not talk enough about nuclear subjects," a student wrote on her essay. "I am literally lost in this area, and so are most of my friends."

It must be conceded that the public schools run the risk of politicizing the institution by taking up such a controversial subject.

How to treat nuclear education is arguably a highly significant ethical issue. It is a subject about which reasonable people can and do passionately disagree, a subject burdened with the most complex moral dilemmas and paradoxes. For example, it was Albert Einstein, an ardent pacifist, who wrote President Franklin D. Roosevelt urging that the possible use of atomic energy in bombs be investigated, a letter that helped bring about the Manhattan Project.

The goal of nuclear age education should be to encourage students to enter into the discussion, to expose themselves to various points of view on this important issue, and to sharpen their critical thinking skills so that they can identify the weaknesses and strengths of the various arguments. If the destructive force of the atomic bomb was latent in the laws of physics--which are beyond anyone's power to change--the decision whether to use it remains a human one. That, in itself, offers some small reason for hope and--in a democracy--is the ultimate argument in favor of nuclear age education.

APPENDIX A

ASSEMBLY BILL NO. 3848

Chapter 1590

An act to add Article 6.5 (commencing with Section 51755) to Chapter 5 of Part 28 of the Education Code, relating to education.

(Approved By Governor September 29, 1984.
Filed with Secretary of State September 30, 1984.)

LEGISLATIVE COUNSEL'S DIGEST

AB 3848, Vasconcellos. Education: nuclear age education curriculum.

Existing law requires certain courses of instruction, and authorizes certain other courses of instruction, to be taught in the public schools.

This bill would require the State Department of Education to collect information on current efforts of school districts to provide nuclear age education, and other information relevant to the development of a model nuclear age education curriculum and to report its findings and recommendations to the Legislature by June 30, 1985.

THE PEOPLE OF THAT STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Article 6.5 (commencing with Section 51755) is added to Chapter 5 of Part 28 of the Education Code, to read:

Article 6.5. Nuclear Age Education Curriculum

51755. The Legislature finds and declares as follows:

(a) The discovery of nuclear power has profound implications for our lives and society.

(b) Current research has demonstrated that many of our children today fear the prospect of nuclear war, and it is now recognized that their frequent lack of motivation, particularly in school, is substantially influenced by further fears that there will be no future for themselves, their families, their communities, and their nation.

(c) Some polls have shown that the majority of high school students believe that nuclear war in the next decade is inevitable.

(d) If left unchecked, this lack of motivation and the feelings of helplessness could prove to be as devastating to American society as war itself.

(e) It is the inherent right of our children to pursue their educational objectives free from the immobilizing threat of nuclear war and their own annihilation.

51756. The Legislature further finds and declares as follows:

(a) Through their curricula, our public schools traditionally provide our children with an understanding and appreciation of personal values and a sense of human community.

(b) It is the responsibility of our public educational system, in conjunction with parents to intellectually and emotionally prepare our students to understand and cope with reality, including the facts of life in the nuclear age, the threat of nuclear war and annihilation, and the dangers of radiation.

(c) Our public schools provide an appropriate forum for discussion of the personal, environmental, social, political, and military aspects of life in the nuclear age. These discussions make a valuable contribution to students' development into informed, self-assured, responsible, decision-making adults.

(d) It is also the responsibility of our public educational system to provide students with an understanding of the causes of conflict among nations and the options for conflict resolution and the attainment of peace.

(e) Many parents, acting out of concern for their children's current and future welfare, are already seeking formal and informal assistance in providing their children with the tools for coping with life in the nuclear age.

(f) Organizations in many states, including California, are already collecting information on nuclear age education curricula designed to meet the needs of students for accurate information on international relations, nuclear war, the causes of war, and available options, including conflict resolution, in the nuclear age, as well as beneficial peacetime uses of nuclear power.

(g) The State Department of Education is best suited to the task of collecting information from various research and educational groups across the country, to make objective assessments of the value of specific components of a curriculum, and to develop a model nuclear age education curriculum.

51757. (a) The State Department of Education shall conduct a survey to review current efforts of school districts to provide nuclear age education. The survey shall include, but not be limited to, all of the following information:

(1) Students' beliefs, attitudes, and feelings regarding life in the nuclear age.

(2) The needs, if any, of students with respect to nuclear age education. Special attention shall be given to methods which students may use to creatively cope with their fears concerning nuclear war.

(3) Each school district's perception of the value of a model nuclear age education curriculum.

(4) The current efforts of each school district to develop and present a nuclear age education curriculum.

(5) Model nuclear age education programs already operating in California.

(b) The department shall also collect other information relevant to the development of a model nuclear age education curriculum, including, but not limited to, studies, experiences, research, and reports of educational organizations, scientific groups, and psychologists regarding the effects of the nuclear age upon children.

(c) The department shall also seek information from concerned parents, teachers, students, and members of the community regarding whether and how a nuclear age educational curriculum should be developed, and shall ensure that all points of view are presented.

(d) On or before June 30, 1985, the department shall submit to the Legislature its findings and recommendations with respect to all of the following:

(1) Whether the Legislature should proceed to develop a program to make nuclear age education more widely available in the public schools.

(2) If the recommendation made pursuant to paragraph (1) is positive, the best method for achieving that result.

APPENDIX B

Please respond by

April 30,1985 to:

History-Social Science Unit
721 Capitol Mall
Sacramento, CA 95814

If there are any questions about this survey, please contact:
Diane Brooks, Manager
Jerry Cummings or
Tomas Roybal
(916) 322-3064

NUCLEAR AGE EDUCATION SURVEY TO COUNTIES/DISTRICTS

Assembly Bill 3848; Chapter 1590, 1984

County/District_____

Name and position of respondent_____

The California State Department of Education requests assistance from representatives of county offices and school districts to collect information as mandated by Assembly Bill 3848, Chapter 1590, 1984 on:

1. Students' beliefs, attitudes and feelings about life in the nuclear age;
2. Needs and methods available which students may use to creatively cope with their concerns about nuclear war;
3. How parents, teachers, students, and members of the community feel regarding whether and how a Nuclear Age Education curriculum should be developed; and
4. Materials that are available and relevant for the development of a Nuclear Age Education Curriculum.

DEFINITION For the purpose of this survey, Nuclear Age Education curriculum is one which includes topics such as international relations; preparing students to understand the threat of nuclear war and its effects; coping with the reality of life in the nuclear age; studying the causes of war and available options, including conflict resolution; and the beneficial peacetime uses of nuclear power.

• •

IF YOUR COUNTY/DISTRICT OFFERS A NUCLEAR AGE EDUCATION PROGRAM, BEGIN WITH ITEM NUMBER 1. IF NOT, BEGIN WITH NUMBER 7.

1. Is there School Board policy regarding instruction in Nuclear Age Education? Yes ( ) No ( )

2. Please check grade levels at which Nuclear Age Education is offered:

K-3....( )
4-6....( )
7-8....( )
9-12....( )

3. In what subject areas is Nuclear Age Education offered?

History-Social Science.....( )
Science.....( )
English/Language Arts.....( )
Health.....( )
Other (Specify)_____

Is the curriculum locally developed? Yes ( ) No ( )

If not, what is the source?_____

Total instructional minutes per week on Nuclear Age Education:_____

4. Who has made inquiries about the need to offer Nuclear Age Education? Please write the number of those inquiring:

Students.....( )
Teachers.....( )
Parents.....( )
Community Members.....( )
Special Interest Groups.( )
(Specify)_____

5. Check below if in-service training in Nuclear Age Education is provided by:

District .....( )
County.....( )
Organizations .....( )

Please identify the provider:_____

6. Do you have instructional materials to support your Nuclear Age Education curriculum? Yes ( ) No ( )

If yes, identify the type and source._____

_____

7. Should there be planned curriculum and instruction on Nuclear Age Education in the public schools? Yes ( ) No ( )

If yes, check the appropriate grade levels:

K-3.....( )
4-6.....( )
7-8.....( )
9-12.....( )

8. Should public schools teach Nuclear Age Education topics? Yes ( ) No ( )

If yes, check appropriate topics:

Discovery and development of nuclear power.....( )
Beneficial peacetime uses of nuclear energy.....( )
Nuclear medicine.....( )
Personal and social aspects of life in the nuclear age....( )
Environmental aspects of life in the nuclear age.....( )
Political and military aspects of life in the nuclear age.( )
International relations.....( )
Causes of conflict among nations and war.....( )
Options for conflict resolution.....( )
Options for attainment of peace.....( )
Nuclear arms race.....( )
Nuclear arms control.....( )
Radiation.....( )
Nuclear war and its effects.....( )
Coping with fears concerning nuclear war.....( )
Others (list)_____

9. Is there a need for in-service training for teachers about the topics of Nuclear Age Education? Yes ( ) No ( )

10. Should the State Legislature....

a. Proceed to develop a program to make Nuclear Age Education more widely available in the public schools? Yes ( ) No ( )

b. Mandate that the State Department of Education develop a model Nuclear Age Education curriculum? Yes ( ) No ( )

PLEASE RESPOND BRIEFLY TO THE FOLLOWING QUESTIONS BASED ON INFORMATION YOU HAVE RECEIVED FROM TEACHERS, PARENTS, AND MEMBERS OF THE COMMUNITY.

1. What are the various points of view of parents, teachers, and members of the community regarding whether and how a Nuclear Age Education curriculum should be developed?

2. If there are objections to or problems with any Nuclear Age Education curriculum you are using, please describe:

3. Please indicate how the answers to questions on this survey were obtained. (For example: Through interviews, surveys, research, questionnaire, etc.)

4. Additional comments.

APPENDIX C

Please respond by

April 30, 1985 to:

History-Social Science Unit
721 Capitol Mall
Sacramento, CA 95814

If there are any questions about this survey, please contact:
Diane Brooks, Manager
Jerry Cummings or
Tomas Roybal
(916) 322-3064

NUCLEAR AGE EDUCATION SURVEY TO ORGANIZATIONS

Assembly Bill 3848; Chapter 1590, 1984

Name of Organization_____

Name and title of respondent_____

Address _____

Telephone(___)_____

The California State Department of Education requests assistance from representatives of organizations to collect information as mandated by Assembly Bill 3848, Chapter 1590, 1984 on:

1. Students' beliefs, attitudes and feelings about life in the nuclear age;
2. Needs and methods available which students may use to creatively cope with their concerns about nuclear war;
3. How parents, teachers, students, and members of the community feel regarding whether and how a Nuclear Age Education curriculum should be developed; and
4. Materials that are available and relevant for the development of a Nuclear Age Education Curriculum.

DEFINITION For the purpose of this survey, Nuclear Age Education curriculum is one which includes topics such as international relations; preparing students to understand the threat of nuclear war and its effects; coping with the reality of life in the nuclear age; studying the causes of war and available options, including conflict resolution; and the beneficial peacetime uses of nuclear power.

. . . . . .

1. If your organization provides information, educational materials, or services on nuclear age education please check the following:

   a. Nuclear Age Education curriculum materials are available for the following grade levels:

      K-3.....( )
      4-6.....( )
      7-8.....( )
      9-12.....( )

   b. Nuclear Age Education units of instruction are provided as part of the following subject areas:

      History-Social Science.....( )
      Science.....( )
      English/Language Arts.....( )
      Health.....( )
      Other (Specify)_____

c. Nuclear Age Education instructional materials are available in the following formats:

SOURCE	EXTENSIVE	MINIMAL
Printed	( )	( )
Audio-Visuals	( )	( )
Computer program	( )	( )
Other (Specify)_____		

d. Personnel and materials resources for staff training are available for:

Teachers.....( )
Curriculum Specialists.....( )
Administrators.....( )

2. If your organization has received information or conducted surveys among students, teachers, parents or community members pertaining to the needs or topics of Nuclear Age Education please write the number of those responding:

Students.....( )
Teachers.....( )
Parents.....( )
Community members.....( )
Other (specify)_____

	Yes	No
3. Should there be planned curriculum and instruction on Nuclear Age Education in public schools?.....	( )	( )

If yes:

a. Check the appropriate grade levels:

K-3.....( )
4-6.....( )
7-8.....( )
9-12.....( )

b. Check the topics that should be included:

Discovery and development of nuclear power.....( )
Beneficial peacetime uses of nuclear energy.....( )
Nuclear medicine.....( )
Personal and social aspects of life in the nuclear age.....( )
Environmental aspects of life in the nuclear age.....( )
Political and military aspects of life in the nuclear age...( )
International relations.....( )
Causes of conflict among nations and war.....( )
Options for conflict resolution.....( )
Options for attainment of peace.....( )
Nuclear arms race.....( )
Nuclear arms control.....( )
Radiation.....( )
Nuclear war and its effects.....( )
Coping with fears concerning nuclear war.....( )
Others (list)_____

	Yes	No
4. Should the California State Legislature...		
a. Proceed to develop a program to make Nuclear Age Education more widely available in the public school?	( )	( )
b. Mandate that the State Department of Education develop a model Nuclear Age Education curriculum?	( )	( )

5. PLEASE RESPOND BRIEFLY TO THE FOLLOWING QUESTIONS AND INDICATE HOW THE INFORMATION WAS OBTAINED:

a. From information you already have, what are the needs, if any, of students with respect to Nuclear Age Education, and what methods can assist them to cope with any fears or concerns regarding nuclear disaster?

b. Should Nuclear Age Education curriculum be developed, and if so, how?

c. Are there any objections to or problems with any Nuclear Age Education curriculum you have been using? If yes, please describe.

d. Please indicate how the answers to questions a-b were obtained (for example: surveys, interviews, informal contacts, questionnaires, research, etc.)

e. Additional comments, including the point of view of your organization, about Nuclear Age Education. (Use back of page as needed.)

APPENDIX D

SDE use only	

STUDENT QUESTIONNAIRE
AB 3848

You are asked to participate in a survey required by the California Legislature to collect information about students' beliefs, attitudes and feelings regarding life in the nuclear age. This is an important request. Your answers will not be graded and do not put your name on the paper.

Thank you very much.

Circle your grade level: 6 11

Circle your gender: boy girl

WOULD YOU PLEASE GIVE THE FOLLOWING QUESTIONS YOUR VERY BEST THOUGHTS.

A List any ideas or images that come to you when you hear the word "nuclear."

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18 _____
19. _____
20. _____

8. Discuss the responsibilities of our President, other countries, your school, your home, and yourself on nuclear issues.

APPENDIX E

CALIFORNIA STATE DEPARTMENT OF EDUCATION **Bill Honig**
721 Capitol Mall Superintendent
Sacramento, CA 95814-4785 of Public Instruction

September 24, 1985

Dear Parent:

The State Legislature, through Assembly Bill 3848, Chapter 1590, has required the State Department of Education to collect information on current efforts of school districts to provide nuclear age education and the needs, if any, of students with respect to nuclear age education.

Your child's class has been requested to participate in a student survey for the purpose of obtaining information about students' beliefs, attitudes and feelings regarding life in the nuclear age. The survey consists of two essay questions on the topic which can be answered during one class period.

Section 60650 of the Education Code states that the parent or guardian of the pupil must be notified in writing when a survey requesting information on personal beliefs is to be administered. Written permission to participate must be obtained. Please respond to the bottom portion of this letter and return the form to your child's teacher.

Thank you very much for this consideration which will permit the Department to respond to the Legislative mandate.

Sincerely,

James R. Smith, Deputy Superintendent
for Curriculum and Instructional
Leadership Branch

CHECK ONE

__ Permission is given for_____to respond to the student survey regarding life in the nuclear age, Assembly Bill 3848, Chapter 1590.

__ Please have my child participate in a different activity during the time the class is responding to the nuclear age survey.

Signed:_____ Date:_____

APPENDIX F

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